REMARKS

Reconsideration and withdrawal of the objections to and rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance or into better condition for appeal.

I. STATUS OF CLAIMS AND FORMAL MATTERS

Claims 1-4, 6-8, 10-12 and 15-18 are now pending. Claims 1 and 6 were amended, claim 5 was cancelled and claim 18 was added, without prejudice.

No new matter is added by this amendment.

It is submitted that these claims are patentably distinct from the prior art cited by the Examiner, and that these claims are in full compliance with the requirements of 35 U.S.C. §112. The amendments and remarks herein are not made for the purpose of patentability within the meaning of 35 U.S.C. §§ 101, 102, 103 or 112; but rather the amendments and remarks are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

Support for the amended recitation in claim 1 is found throughout the specification and from cancelled claim 5. Support for new claim 18 is from previously cancelled claim 9.

II. 35 U.S.C. § 102 REJECTIONS

Claims 1-8, 10-12 and 15-17 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 6,022,902 to Koontz et al. (the " '902 patent"). The rejection is respectfully traversed.

The amendment to claim 1 with the recitation of cancelled claim 5 renders the rejection moot. Further, the Examiner is reminded that a two-prong inquiry must be satisfied in order for

a Section 102 rejection to stand. First, the prior art reference must contain all of the elements of the claimed invention. *See Lewmar Marine Inc. v. Barient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Second, the prior art must contain an enabling disclosure. *See Chester v. Miller,* 15 U.S.P.Q.2d 1333, 1336 (Fed. Cir. 1990). A reference contains an enabling disclosure if a person of ordinary skill in the art could have combined the description of the invention in the prior art reference with his own knowledge of the art to have placed himself in possession of the invention. *See In re Donohue*, 226, U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Applying the law to the instant facts, the '902 patent fails as anticipatory art. The '902 patent fails to disclose and enable a process for immobilizing nucleic acid molecules on a substrate, wherein the substrate is a single crystal surface or an amorphous surface. The '902 patent, column 1, line 57-59, to column 2, lines 7-15, notes that substrates made of glass are undesirable. Glass beads are described as rather brittle and, thus, unstable. *Id.* Instead, the substrate exemplified in the '902 patent, at column 2, lines 25-34, is:

> [A] porous article which has an exterior surface and a bulk matrix and pours extending from the exterior surface into the bulk matrix. The bulk matrix is formed, at least in part, of an organic polymer comprising carbon and hydrogen atoms. The exterior and interstitial surfaces are formed, at least in part, of the same organic polymer comprising carbon and hydrogen atoms, which has been modified[.]

The Examiner is mistaken in the belief that that the '902 patent uses substrates which have an amorphous surface "such as carbon or silicone polymers" (Office Action dated June 10, 2002, page 6). The '902 patent, instead, uses organics-containing substrates, such as the organic polymers recited in column 4, line 50, to column 5, line 64. The present invention, by contrast, does not. Instead, Applicants use, for example, silicon oxides, glass, aluminum oxides, sapphire, perovskites, and derivatives and stabilized and/or doped derivatives thereof (claim 6).

Furthermore, the '902 patent describes the use of polytetrafluroethylene reinforced silicone membranes, which does not fall within the instantly claimed subject matter.

Regarding the plasma oxygen treatment, the '902 patent relates to plasma treatment under reaction conditions wherein radicals from the discharge react with the organic polymer present at the exterior and interstitial surfaces of the porous article. The substrate of the present invention does not contain organic polymers. Thus, the '902 patent does not disclose or enable treating a solid substrate that is a single crystal surface or an amorphous surface with atomic oxygen plasma. The instant rejection based on the '902 patent, therefore, must be withdrawn as a matter of law.

Consequently, reconsideration and withdrawal of the Section 102 rejections are believed to be in order and such actions are respectfully requested.

CONCLUSION

By this Amendment, claims 1-4, 6-8, 10-12 and 15-18 should be allowed; and this application is in condition for allowance or in better condition for appeal. Favorable reconsideration of the application, withdrawal of the rejections, and prompt issuance of the Notice of Allowance are, therefore, all earnestly solicited.

Respectfully submitted,
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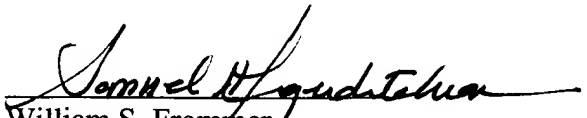
By: 

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